



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,389	10/20/2003	Mitsuhide Takamura	03560.003372	1291
5514	7590	06/22/2006	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			KUMAR, RAKESH	
30 ROCKEFELLER PLAZA				
NEW YORK, NY 10112			ART UNIT	PAPER NUMBER
			3654	

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/688,389	<b>Applicant(s)</b> TAKAMURA, MITSUhide	
	<b>Examiner</b> Rakesh Kumar	<b>Art Unit</b> 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on Remarks filed 03/13/2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 3-5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/13/2006</u> . | 6) <input type="checkbox"/> Other: _____  |

### **Final Rejection**

1. *Applicant's arguments filed 03/13/2006 have been fully considered but they are not persuasive for reasons detailed below.*

2. *Claims 3-5 cancelled by the Applicant in Amendment filed 03/13/2006.*

The prior art rejections are maintained or modified as follows:

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Referring to claim 1. Claim 1 recites the limitation "the first and second alignment members" on page 3, line 3. It is unclear whether "the first and second alignment members" are the as the "lateral alignment means." It is generally construed by the Office to mean the two the first and second alignment members are the same as the lateral alignment means. Appropriate action is required.

5. Referring to claim 1. Claim 1 recites the limitation “by switching timing when the first and second alignment members move to the retreat position.” It is unclear how the lateral alignment means can displace the sheet bundles from each other in the conveying direction. It is generally understood and broadly construed by the Office to mean alignment of sheets by selectively moving the first or the second alignment members.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1,2,7,9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (U.S. Patent Number 6,963,722) in view of Mandel (U.S. Patent Number 5,289,251) and in further view of Endo (U.S. Patent Number 6,357,743).

8. Referring to claim 1. Matsumoto discloses a sheet processing apparatus 10, comprising: sheet conveying means (rollers 78, 79 and 80; Figure 1) for conveying sheets (P); first loading means (421X; Figure 4) for loading a sheet bundle comprising a plurality of sheets conveyed by the sheet conveying means (Col. 10 lines 19-44; Figure

16 and Figure 17); lateral aligning means (418, 412, 412A and 412B; Figure 4, 7 and 23) for aligning the opposite side edges (edge contacting stopper 418) of the sheet bundle loaded on the first loading means (421X) in the direction perpendicular (position of the stopper 418) to the sheet conveying direction (direction of rotation of belt 421; Figure 4); stapling means (419) for performing a stapling treatment with respect to a sheet bundle aligned by the lateral alignment means (418, 412, 412A and 412B; Figure 4, 7 and 23); sheet bundle conveying means (421) for conveying a sheet bundle stapled by the stapling means (419); second loading means (411) for loading sheet bundles conveyed by the sheet bundle conveying means (421); and loading position control means (420) for loading sheet bundles to be loaded onto the second loading means (411) so that the loading positions thereof are displaced from each other along the sheet conveying direction (Col. 8 line 14).

Matsumoto does not specifically disclose the loading sheet bundles to be loaded on the second loading means to displace the bundles from each other along the sheet conveying directions (see Figure 4).

Mandel discloses an apparatus wherein the sheet bundles to be loaded on the second loading means are displaced from each other along the sheet conveying directions (Figure 1).

Endo discloses an apparatus wherein the sheet bundles are aligned by selectively moving alignment members (51 A and 51B; Figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Matsumoto and include offsetting the

sheet bundles in conveying direction as taught by Mandel and further selectively move the individual alignment members to align the sheet bundles because offsetting in the conveying direction would reduce the width of the apparatus.

9. Referring to claim 2. Matsumoto discloses a sheet processing apparatus 10, wherein the second loading means (411) is disposed below the first loading means (421X; Figure 4).

10. Referring to claim 7. Matsumoto discloses a sheet processing apparatus 10, comprising longitudinal alignment means (417) for aligning a sheet bundle (P) loaded on the first loading means (421X; Figure 4) in the sheet conveying direction (direction of rotation of belt 421; Figure 4) (Col. 8, line 30-48).

11. Referring to claim 13. Matsumoto discloses a sheet processing apparatus 10, comprising full load detecting means (423 and S10) for detecting the full load state of sheet bundles (P) on the second loading means (411; Col. 12, line 52-59).

12. Referring to claim 9. Matsumoto discloses a sheet processing apparatus 10, wherein the sheet conveying means (rollers 78, 79 and 80; Figure 1) and the sheet bundle conveying means (421) are driven by a different driving source (Figure 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the apparatus of Matsumoto in view Mandel and in further view of

Endo to drive both the sheet conveying means and the sheet bundle conveying means by a single driving source. Such a selection would be well within the level of skill of an artisan.

13. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto in view Mandel and in further view of Endo as applied to claim 1 above, and further in view of Chung (U.S. Patent Number 6,231039).

14. Referring to claim 6. Matsumoto discloses a sheet processing apparatus 10, wherein the lateral alignment means (418, 412, 412A and 412B; Figure 4 and 23) comprises a first alignment member (418) that aligns the edge on one side of a sheet bundle (Col. 8 line 33-40) in the direction perpendicular to the sheet conveying direction (direction of rotation of belt 421; Figure 4), and a second alignment member (412A and 412B) that aligns the edge of the sheet bundle (P) on the side opposite to the one side (Figure 18, 23 and 24) thereof aligned by the first alignment member (418), and wherein the first (418) and second (412A and 412B) alignment members perform alignment of a sheet bundle (P) by moving to respective alignment positions bordering on the opposite side edges of the sheets (Figure 7).

Chung discloses an apparatus wherein the first and second alignment members (33, left and right side; Figure 9-13) let the aligned sheet bundle (39a) fall onto the second loading means (34) by moving to respective retreat positions (in direction C) that

are spaced apart from each other by at least the length (Figure 13) of the sheet bundle (39a) in the width direction (Col. 6, line 58).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the apparatus of Matsumoto in view Mandel and in further view of Endo to include a first and second alignment members that can be moved apart in the width direction of the sheet bundle and allow the bundle to fall onto the second tray as disclosed by Chang. As a result, cost can be reduced by not using a belt drive to maneuver the bundles to a second tray as disclosed by Matsumoto.

Matsumoto discloses a sheet processing apparatus 10, wherein the discharge convey speed of the sheet bundle is desirable to maintain a high ejection speed in order to achieve faster operation speed of the apparatus. Matsumoto further discloses that to achieve the high speed operation of the apparatus the discharge roller (415) must be operated at a high rotational speed, however it is evident that if the rollers are rotating at a high speed the sheet bundle will be ejected at a high speed and therefore miss positioning of the sheet bundle on the intermediate processing tray (421X), thus Matsumoto discloses that the high discharge roller speed must be slowed as the rear of the sheet bundle approaches the ejection point. As a result, controllably allow the sheet bundle to fall onto a predetermined position of the intermediate processing tray (421X) (Col. 13, line 13-39).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the apparatus of Matsumoto in view Mandel and in further view of Endo such that the rotational speed of the discharging belt (421) can be



switched and varied from an initial high speed to a low rotational speed to eject the sheet bundle at a staggered loading position onto the second loading tray as the two alignment members (412A and 412B) move to the retreat position to accept the next sheet bundle. As a result, the cost in production can be reduced.

Chung discloses an apparatus wherein the loading positions of sheet bundles (Figure 13) to be loaded onto the second loading means (34) in a staggered offset alignment from each other in order to prevent the stapling positions of the sheet bundles from being superimposed on each other (Col. 2, line 20-34).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the apparatus of Matsumoto in view Mandel and in further view of Endo to include staggering of the sheet bundle to keeping the staples from being superimposed on each other as taught by Chung to be able to stack a larger quantity of sheet bundles before having to remove them from the tray.

15. Claims 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto in view Mandel in view of Endo in view of Chung as applied to claim 6 above, and further in view of Watanabe et al. (U.S. Patent Number 5,447,298).

16. Referring to claims 8 and 14. See claim 7. Watanabe disclose a finisher apparatus comprising sheet hold-down means (446 and 447; Figure 4) for holding down a sheet bundle (P) loaded on the first loading means (350; Col. 3, line 43-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the apparatus of Matsumoto in view Mandel in view of Endo in view of Chung to include a sheet hold down means to hold the sheet bundle in place as it is being stapled as taught by Wantanabe, after the sheet bundle has been aligned by the lateral alignment means (418, 412, 412A and 412B; Figure 4 and 23; Chung) and the longitudinal alignment means (417; Matsumoto). By holding the sheet bundle in place after alignment, the scatter of sheets can be reduced as the sheet bundle is stapled.

17. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto in view Mandel in view of Endo in view of Chung as applied to claim 9 above, and further in view of Fukatsu et al. (U.S. Patent Number 6,382,614).

18. Referring to claims 10-12. Fukatsu discloses an apparatus wherein the sheet bundle conveying means (11 and 12; Figure 1) is a pair of rollers comprising an upper roller (11) and a lower roller (12), and wherein the sheet bundle conveying means can be switched between separation (see position of roller 11 and 12; Figure 1) and nipping (see position of roller 11 and 12 in Figure 6; Col. 5, line 8-57). Rollers (11 and 12; Figure 1) are positioned in a staggered position when the rollers are separated.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the apparatus of Matsumoto in view Mandel in view of Endo and use a sheet bundle conveying means as taught by Fukatsu comprising a

upper roller and a lower roller, which engage and disengage the sheet bundle. Thus, making the conveying means more compact and achieving a reduction in production cost.

### ***Response to Arguments***

19. Applicant's arguments filed 03/13/2006 have been fully considered but they are not persuasive for reasons detailed below.

Applicant's arguments with respect to claims 1 and 14 have been considered but are moot in view of the new ground(s) of rejection. See new rejections above.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, see new rejections above.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Conclusion***

20. Any references not explicitly discussed above but made of record are considered relevant to the prosecution of the instant application.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rakesh Kumar whose telephone number is (517) 272-8314. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Art Unit: 3654

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see

<http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RK  
May 26, 2006

  
GENE O. CRAWFORD  
SUPERVISORY PATENT EXAMINER